

VN8810

Intelligent Diagnostic Device – Reprogramming, Diagnostic Scripting and Remote Diagnostics

What is VN8810?

The VN8810 is a compact and intelligent diagnostic hardware device for various applications involving vehicle diagnostics. Accessing the vehicle is easily done via the OBD socket.

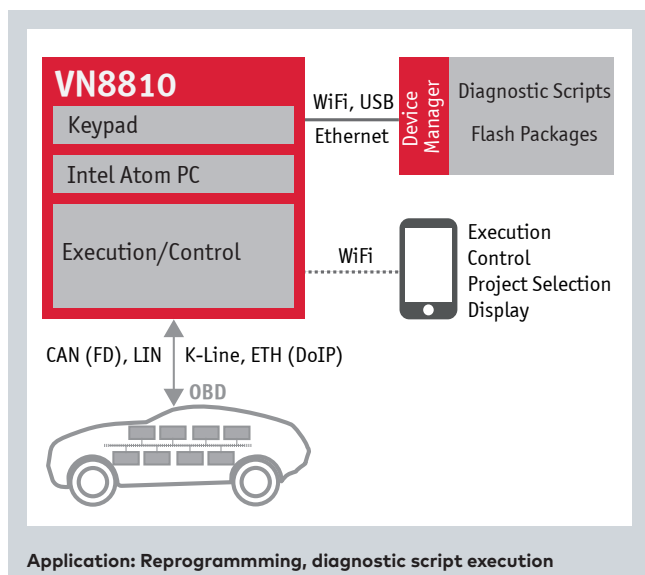
The reprogramming of ECUs or the execution of diagnostic scripts is handled by one single hardware device. Once flash packages or scripts have been transmitted, the VN8810 executes them autonomously in standalone mode or optionally controlled via a smartphone or tablet.

In addition, the VN8810 serves as the access point for remote diagnostics. As a result, the user can diagnose vehicles directly and interactively throughout the world without having to be on site.

Overview of Advantages

- > Intelligent diagnostic hardware with Intel ATOM PC
- > CAN High-Speed channel with CAN FD support, including selectable 120-ohm terminating resistor

- > K-Line support
- > DoIP incl. Activation Line
- > Bicolor LEDs for display of status and bus activities
- > Versatile connections to the infrastructure
- > Easy configuration by a PC Device Manager via USB, Ethernet, or WiFi
- > Standalone operation without user PC
- > Keypad for user interaction in standalone mode, optionally also via a mobile device app
- > Piezo buzzer for acoustic feedback
- > USB 3.0 host connection for connection of 3G/4G devices
- > OBD-II connection for vehicle access
- > Power supply and temperature ranges for automotive and industrial applications
- > Rugged housing with rubber protectors
- > Different applications optimized for standalone mode, such as vFlash Compact, vScriptDiagnostics and Diagnostic Access Point Compact



Application Areas

ECU Reprogramming

For reprogramming flash packages (configuration and data) are transmitted via USB, Ethernet, or Wifi from the PC to the VN8810. Once connected to a vehicle, the user controls and tracks the reprogramming via the keypad with Status LEDs – or alternatively with a smartphone or tablet.

Diagnostic Script Execution with vScriptDiagnostics

Diagnostic scripts in C# can be developed on the PC or recorded with Indigo and then transmitted to the VN8810. Once connected to a vehicle, the user controls and tracks the script selection and execution via the keypad with Status LEDs – or alternatively with a smartphone or tablet.

Exemplary Applications:

- > Standalone execution of diagnostic sequences mainly for OEMs but also for suppliers
- > Preparing vehicle initial operations:
 - Execute diagnostic scripts
- > During or after test drives:
 - Report vehicle health check, fleet related report, ...
- > Vehicles production line, EOL testing (and aftersales):
 - > Creation of reports of ECUs for documentation
 - > ECU testing as well as cleanup or auxiliary operation of ECUs, e.g. clearing fault memory, reset adaptation values, enable security mechanisms, ECU reset
 - > Learn/parameterize/variant coding of ECUs

Interactive Remote Diagnostics

In the case of interactive remote diagnostics, the VN8810 as a diagnostic access point replaces the classic diagnostic tester and acts as a network interface. Using a remote service on the Internet, the VN8810 communicates the diagnostic requests and responses between the vehicle and the remote diagnostic software Indigo Remote. Advantage: Neither the diagnostic data nor an expert has to be on site – direct access to the vehicle is still possible at any time.

Accessories

- > OBD-II cable (1 m and 3 m)
- > Breakout Box VN88:
 - Breakout of the CAN, K-Line, Ethernet, and DoIP Activation Line connections
- > OBD power adapter (for configuration)

Technical Data

General	
CPU	Intel ATOM E3825 dual core processor, 1.33GHz, 2GB DDR3L onboard memory
Memory	16GB CFAST card
USB host interface	1 x USB 3.0 SuperSpeed
PC/infrastructure interface	1 x USB 3.0 SuperSpeed 1 x WiFi 802.11 a/b/g/n, 2.4 GHz and 5 GHz band up to 300 Mbit/s
Keypad and LED	2 x push button, 10 x bicolor LED
Supply voltage	6 V ... 36 V via OBD
Power consumption	typ. < 9 W (max. approximately 16 W)
Temperature range	operating: -40°C ... +50°C, storage: -40°C ... +85°C
Operating system requirements	Windows 7/8.1 (32 and 64 bit) for Device Manager
Start-up time	< 20 sec.
Dimensions	170 x 110 x 45mm (L x W x H) without antennas
Weight	approximately 800 g
Interface	
CAN	1 x CAN TJA1051 (capacitive decoupled), CAN FD capable CAN High-Speed: 2 Mbit/s, CAN FD: up to 8 Mbit/s
K-Line / LIN	1 x LIN TLE7269 (capacitive decoupled), normal mode: 20 kbit/s, flash mode: 115 kbit/s
DoIP	1 x Fast Ethernet 100 Mbit incl. DoIP Activation Line